



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,234	10/30/2000	Otto Preiss	004501-446	6329

21839 7590 01/21/2004

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 01/21/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,234

Applicant(s)

PREISS ET AL.

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1, 10, 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9, 11 and 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the request for reconsideration submitted 03 December 2003.
2. The amendments to claims 1-20 and new claims 21-24 have been entered. Claims 1, 10, 12, and 13 have been cancelled.

Response to Arguments

3. Applicant's arguments filed 03 December 2003 have been fully considered but they are not persuasive. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
4. The Office Actions (paper no. 10) mailed 03 September 2003 and (paper no. 7) mailed 15 January 2003 are hereby incorporated by reference.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another, filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,059,439 to Besnard. (See numbered paragraph 6 of the Office Action mailed 15 January 2003.)

7. Claims 4, 16, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,298,377 to Hartikainen et al. (See numbered paragraph 7 of the Office Action mailed 15 January 2003.)

8. Claims 5, 11, 21 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by USPN 6,618,745 B2 to Christensen et al.

As per claim 21, the Christensen et al. reference discloses a method for integration of a field device in an installation control system, wherein the installation control system has a communications network and a control station, the method comprising a) transmitting, by the field device (see column 5 lines 30-35, "smart field devices 22-26"), a functional description (see column 7 lines 8-13, "device description") of its device functions ("virtual field device") to the control station (see column 50-55, "controller 18") in a standardized form (see column 6 lines 40-47, "standard set of message formats"); b) installing functions (see column 5 lines 56-62, "function blocks") associated with the field device ("smart field devices 22-26") on the control station ("controller 18"); and c) configuring communications links (see column 6 lines 40-47, "communication services, message formats, protocol behaviors") between the device functions ("virtual field device") and functions of the control station ("controller 18").

As per claim 22, the rejection of claim 21 is incorporated and further claim 22 contains limitations recited in claim 21; therefore claim 22 is rejected under the same rationale as claim 21.

As per claim 5, the Christensen et al. reference discloses the functional descriptions of the field device use a description language in accordance with IEC Standard 61850-6 or its draft (see column 6 lines 40-47, "Fieldbus protocol").

As per claim 11, the rejection of claim 5 is incorporated and further claim 11 contains limitations recited in claim 5; therefore claim 11 is rejected under the same rationale as claim 5.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5 and 11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,298,377 to Hartikainen et al. in view of

http://www.nettedautomation.com/standardization/IEC_TC57/WG10-

[12/iec61850/61850_on_a_page.html](http://www.nettedautomation.com/standardization/IEC_TC57/WG10-12/iec61850/61850_on_a_page.html). (See numbered paragraph 9 of the Office Action mailed 15 January 2003.)

11. Claims 2-9 and 11, 14-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,960,214 to Sharpe, Jr. et al. (See numbered paragraph 7 of the Office Action mailed 03 September 2003.)

12. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,618,745 B2 to Christensen et al.

As per claim 9, the Christensen et al. reference does not expressly disclose the installation control system (see column 4 lines 52-53, "process control system 10") controls a high-voltage or medium-voltage switchgear assembly.

However, it would have been logically to one of ordinary skill in the art to modify the process control system to be applicable to any system interconnecting field equipment such as sensors, actuators, controllers, valves, etc. located in a process control environment of a plant.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the process control system taught by the Christensen et al. reference to be applicable to any system interconnecting field equipment to provide a local area network for field devices within a process, enabling these field devices to interoperate to perform control functions at

locations distributed throughout a process and to communicate with one another to implement an overall control strategy.

One of ordinary skill in the art would have been motivated to provide a local area network for field devices within a process, enabling these field devices to interoperate to perform control functions at locations distributed throughout a process and to communicate with one another to implement an overall control strategy so that smart field devices that use a standard communication protocol are interfaced to a process control system which may not use that communication protocol.

As per claim 20, the rejection of claim 9 is incorporated and further claim 20 contains limitations recited in claim 9; therefore claim 20 is rejected under the same rationale as claim 9.

13. Claims 2-9, 11 and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,615,088 B1 to Myer et al.

As per claim 21, the Myer et al. reference discloses a method for integration of a field device in an installation control system, wherein the installation control system has a communications network and a control station, the method comprising

a) transmitting, by the field device (see column 2 lines 60-67, "plurality of devices, Internet appliances 37-39"), a functional description (see column 5 lines 37-41 and column 6 lines 14-17, 27-30, "configuration file 104") of its device functions (see column 5 lines 37-41 and column 6 lines 50-67, ("device-specific protocol information") to the control station (see column 3 lines 10-20, "master controller 26") in a standardized form (see column 5 lines 47-49, "instances of generic device interface object 102"); b) installing functions (see column 5 lines 47-49, "reading or loading configuration files") associated with the field device ("plurality of devices, Internet appliances 37-39") on the control station ("master controller 26"); and c) configuring communications links (see column 5 lines 41-45, "instances 106-111" and column 7 lines 53-54, "information on communication") between the device functions ("configuration file 104") and functions of the control station ("master controller 26").

The Myer et al. reference does not expressly disclose field devices.

However, it would have been logically to one of ordinary skill in the art to modify the plurality of devices taught by the Myer et al. reference to include a variety of devices, appliances and/or equipment.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the plurality of devices taught by the Myer et al. reference to include a variety of devices, appliances and/or equipment utilizing wired, wireless, power line carrier or any other suitable transmission medium as the underlying network (see column 2 lines 54-60).

One of ordinary skill in the art would have been motivated to modify the plurality of devices to include a variety of devices, appliances and/or equipment utilizing wired, wireless, power line carrier or any other suitable transmission medium as the underlying network to provide in a fully automated environment, appliances that change various parameters of the environment linked to a control area network and a computer-based controller.

As per claim 22, the rejection of claim 21 is incorporated and further claim 22 contains limitations recited in claim 21; therefore claim 22 is rejected under the same rationale as claim 21.

As per claim 2, the Myer et al. reference discloses before integration of the field device (see column 2 lines 60-67, "plurality of devices, Internet appliances 37-39"), the control station (see column 3 lines 10-20, "master controller 26")

contains information about a structure of the installation (see column 5 lines 30-35, "installation software 100").

As per claim 14, the rejection of claim 2 is incorporated and further claim 14 contains limitations recited in claim 2; therefore claim 14 is rejected under the same rationale as claim 2.

As per claim 3, the Myer et al. reference discloses before integration of the field device, the control station (see column 3 lines 10-20, "master controller 26") contains information about an identity of the field device and/or about an identity of primary units which are associated with the field device (see column 6 lines 19-29, "pre-existing configuration file in master controller 36").

As per claim 15, the rejection of claim 3 is incorporated and further claim 15 contains limitations recited in claim 3; therefore claim 15 is rejected under the same rationale as claim 3.

As per claim 4, the Myer et al. reference discloses at least one function of the control station is installed automatically on the basis of the nature of this function (see column 6 lines 19-29, "newest available version of the configuration file is automatically loaded into master controller 36").

As per claim 16, the rejection of claim 4 is incorporated and further claim 16 contains limitations recited in claim 4; therefore claim 16 is rejected under the same rationale as claim 4.

As per claim 5, the Myer et al. reference discloses the functional descriptions of the field device use a description language in accordance with IEC Standard 61850-6 or its draft (see column 2 lines 54-67, "Ethernet").

As per claim 11, the rejection of claim 5 is incorporated and further claim 11 contains limitations recited in claim 5; therefore claim 11 is rejected under the same rationale as claim 5.

As per claim 6, the Myer et al. reference discloses generic functions of the control station (see column 5 lines 32-36, "generic device interface object 102") are associated with the field device (see column 2 lines 60-67, "plurality of devices, Internet appliances 37-39") are stored in the control station (master controller 36") before a physical installation of the field device (see column 6 lines 45-49, "prior to bringing the new device on-line" and column 9 lines 23-27, "configuring of the device interface object first").

As per claim 17, the rejection of claim 6 is incorporated and further claim 17 contains limitations recited in claim 6; therefore claim 17 is rejected under the same rationale as claim 6.

As per claim 7, the Myer et al. reference discloses functions of the control station ("master controller") that are associated with the field device ("plurality of devices") are transmitted by the field device ("plurality of devices") to the control station ("master controller") during a physical installation of the field device (see column 9 lines 20-27, "when the device is brought on-line" and "insertion of the hardware device first").

As per claim 18, the rejection of claim 7 is incorporated and further claim 18 contains limitations recited in claim 7; therefore claim 18 is rejected under the same rationale as claim 7.

As per claim 8, the Myer et al. reference discloses generic functions of the control station (see column 3 lines 39-40, "master controller 36") that are associated with the field device (see column 3 lines 21-23, "Internet appliances 37-39") are transmitted to the control station ("master controller 36") during physical installation of the field device using an address (see columns 3-4 lines 67-8, "URL" and column 4 lines 28-32, "control network portal 12").

As per claim 19, the rejection of claim 8 is incorporated and further claim 19 contains limitations recited in claim 8; therefore claim 19 is rejected under the same rationale as claim 8.

As per claim 23, the rejection of claim 8 is incorporated and further claim 23 contains limitations recited in claim 8; therefore claim 23 is rejected under the same rationale as claim 8.

As per claim 24, the rejection of claim 8 is incorporated and further claim 24 contains limitations recited in claim 8; therefore claim 24 is rejected under the same rationale as claim 8.

As per claim 9, the Myer et al. reference does not expressly disclose the installation control system (see column 2 lines 52-67, "system 10") controls a high-voltage or medium-voltage switchgear assembly ("variety of devices, appliances and/or equipment").

However, it would have been logically to one of ordinary skill in the art to modify the Internet appliances taught by the Myer et al. reference to be applicable to any other environment.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the Internet appliances taught by the Myer

et al. reference to be applicable to any other environment utilizing wired, wireless, power line carrier or any other suitable transmission medium as the underlying network (see column 2 lines 58-60).

One of ordinary skill in the art would have been motivated to modify the Internet appliances to be applicable to any other environment utilizing wired, wireless, power line carrier or any other suitable transmission medium as the underlying network to provide in a fully automated environment, appliances that change various parameters of the environment linked to a control area network and a computer-based controller.

As per claim 20, the rejection of claim 9 is incorporated and further claim 20 contains limitations recited in claim 9; therefore claim 20 is rejected under the same rationale as claim 9.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to remote device management in general:

USPN 6,618,630 B to Jundt et al.

USPN 6,618,764 B1 to Shteyn

USPN 6,633,899 B1 to Coward

USPN 6,662,240 B1 to Siefert


USPN 6,662,241 B1 to Bauer et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703.305.0282. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

cjb
January 12, 2004



ANIL KHATRI
SUPERVISORY PATENT EXAMINER